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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,547	04/19/2004	Lukas P.P.P. van Ginneken	054355-0309380	3884

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EXAMINER

SIEK, VUTHE

ART UNIT	PAPER NUMBER
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2825

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/828,547	Applicant(s) VAN GINNEKEN, LUKAS P.P.P.	
	Examiner Vuthe Siek	Art Unit 2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/27/05; 7/24/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :4/19/04;8/31/05;9/8/05;10/11/05;11/10/05.

DETAILED ACTION

1. This office action is in response to application 10/828,547 and Preliminary Amendment filed on 1/27/2005. Claim 1 remains pending in the application.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

3. Claim 1 is objected to because of the following informalities: "a electronic" should be changed to --an electronic--' (line 2); "the immunity" lacks proper claim antecedent basis; "a technique" should be clearly specified (what technique); "a plurality of types" should be specified (what types); "capable of being" should be changed to an accurate claim language; " a signal integrity violation" should be specified (what signal integrity, any condition of associated with); "will occur" should be changed to language that is occurred at present time (language is so vague, when will be occurred?); "if a violation will occur" should be changed to language that is occurred at present time and clarified (signal integrity violation needed to be clearly specified) and "could be repaired" should be changed to an accurate claim language (what kind of repaired needed to be done). Applicant has used numerous ambiguous claim language that causes many problems (claim interpretation) when analyzing and interpreting the claim language. Since this application is critical, applicant is required to clearly define each of the claim limitations. Note that in the response applicant is requested to point out specific lines number and page that support each of the claimed limitations. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Examples of steps and/or claim limitations that lack description in application disclosure as originally filed are: "formal automated signal analysis", "categorizing a given one...", "initiating a technique...", "characterizing the immunity...by non-automated signal analysis", and "a signal integrity violation".

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For example, the limitation "how said violation could be repaired" renders the claim indefinite because the claim invention is unclear, since the steps of how to repair the violation are missing and a final result could not be assured.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,725,438 B2 and over claims 1-54 of U.S. Patent No. 6,453,446 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are refereed to an automated method for designing an initial integrated circuit layout based on upon an electronic circuit description and by using a cell library containing cells that each having an associated relative delay value (immunity) comprising selecting a plurality of cells (cell types) to be coupled to each other, some of the cells having an initial intended delay associated therewith for ensuring that predetermined timing constraints are met, determining a placement of the selected cells and the wires coupled thereto, determining the area of the some cells using lengths of the wires such that initial intended delay of each cell is realized, wherein a group of some cells are assigned in buckets and operated upon in order to determined the initial intended area of each of the group of said some cells. The claims of the patents result the problem (violation) by inserting buffers, increasing delay and decreasing delay. Although, the patent claims do not recited performing analysis, it would have obvious to

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practitioners in the art at the time the invention was made to realize that the analysis must be used in the circuit design as recited in the patent claims because performing signal analysis would realize an optimized IC design to meet predetermined timing constraints as expected.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by O'Brien et al. (5,796,985).

12. As to claim 1, O'Brien et al. teach a method for timing analysis including estimating time delays upon elements of an electronic circuit design by incorporating a Miller compensation (Miller effect) for modeling electrical circuits. The method comprises categorizing a given one of the elements into one of a plurality of types (col. 1 lines 56-65; col. 2 lines 55-62; col. 3 lines 9-20; col. 4 lines 56-67; col. 5 lines 30-42; col. 6 lines 18-25; col. 7 lines 56-67); initiating a technique for characterizing the immunity (capacitance, resistance, delay) of said given element to electrical signal effects (delays) (col. 6 lines 36-67; col. 7 lines 1-67; col. 8 lines 1-47; Fig. 7-8), said technique appropriate for said categorized type, said technique yielding results to be

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verified by non-automated signal analysis (Fig. 7-8; col. 6 lines 36-67; col. 7 lines 1-67; col. 8 lines 1-15; circuit timing analysis tools provide feedback to the designer as to the feasibility and efficiency of his design; Fig. 7-8; col. 9 lines 1-18); and determining based on said characterizing, whether a signal integrity violation will occur as a result of said given element (col. 6 lines 35-67; col. 7 lines 1-67; col. 8 lines 1-15), and if a violation will occur, how said violation could be repaired (circuit timing analysis tools provide feedback to the designer as to the feasibility and efficiency of his design; col. 8; col. 9 lines 1-18; col. 7-9 described how the signal integrity violation could be repaired). O'Brien et al. teach using timing analysis, timing analysis programs and circuit simulation to characterize timing delays and verify an IC design in order to comply with design specifications as required (col. 8 lines 16-67; col. 9 lines 1-55).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vuthe Siek whose telephone number is (571) 272-1906.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on (571) 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vuthe Siek


VUTHE SIEK
PRIMARY EXAMINER